DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
P. O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0019

REPLY TO
ATTENTION OF

MAINTENANCE DREDGING
LONGBOAT PASS
MANATEE COUNTY, FLORIDA

FINDING OF NO SIGNIFICANT IMPACT

I have reviewed the Environmental Assessment (EA) of the proposed action. Based on information analyzed in the EA, reflecting pertinent information obtained from other agencies and special interest groups having jurisdiction by law and/or special expertise, I conclude that the proposed action will have no significant impact on the quality of the human environment. Reasons for this conclusion are, in summary:

1. There will be no adverse impacts to endangered or threatened species, if the work is conducted in accordance with the Biological Opinion issued by the U.S. Fish and Wildlife Service for maintenance dredging of Longboat Pass.

2. In coordination with the State Historic Preservation Officer, it was determined there would be no impacts on sites of cultural or historical significance.

3. State water quality standards will be met.

4. The proposed project has been determined to be consistent with the Florida Coastal Zone Management Program and concurred with by the issuance of the required water quality certification.

5. Measures to eliminate, reduce, or avoid potential impacts to fish and wildlife resources will be implemented during project construction.

6. Benefits to the public will be maintenance of the navigation channel, continued local economic stimulus, and increased beach area for recreation and sea turtle nesting.

In consideration of the information summarized, I find that the proposed action will not significantly affect the human environment and does not require an Environmental Impact Statement.

3 NOV 95
Date

TERRY L. RICE
Colonel, Corps of Engineers
Commanding

MAINTENANCE DREDGING
LONGBOAT PASS
MANATEE COUNTY, FLORIDA

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Date

SIGNED, Terry L. Rice

TERRY L. RICE
Colonel, Corps of Engineers
Commanding

Fonferek/CESAJ-PD-ES/1690/ljd
McAdams/CESAJ-PD-EE
Dugger/CESAJ-PD-ER
Smith/CESAJ-PD-E
Salem/CESAJ-PD
Burns/CESAJ-DX
Connell/CESAJ-DDA
Price/CESAJ-DE

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OCTOBER 1995

MAINTENANCE DREDGING AND PLACEMENT

LONGBOAT PASS
MANATEE COUNTY, FLORIDA

ENVIRONMENTAL ASSESSMENT

US Army Corps of Engineers
Jacksonville District
South Atlantic Division

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1.0. PURPOSE OF AND NEED FOR ACTION.

1.1. **INTRODUCTION.** When a Federal navigation project is authorized, it is generally the responsibility of the U.S. Army Corps of Engineers to maintain that channel. As part of that responsibility, the channels are monitored for shoaling and if the situation warrants it maintenance dredging is performed. As part of the Federal standard for the project, disposal areas are acquired by the local sponsor. The disposal option with the least cost is designated the baseline for the project. If the local sponsor should desire another option then, that option is cost shared.

1.2. **LOCATION.** Longboat Pass is located in Manatee County, Florida (Figure 1). The project is situated between Anna Maria Island to the north and Longboat Key on the south. It connects Sarasota Bay and the Gulf of Mexico.

1.3. **NEED AND PURPOSE.** The tidal flows and the littoral transport of sand cause shoaling in the man-made channel which acts like a sedimentation basin. Periodic dredging is required to maintain adequate navigation depths. Surveys indicate sufficient shoaling to justify maintenance.

1.4. **AUTHORITY.** The authorization for maintenance of the Federal channel was authorized by the Rivers and Harbors Act of 14 July 1970 and approved by the Chief of Engineers on 20 April 1976 under Section 107 of the Act.

1.5. **DECISION TO BE MADE.** The decision to be made is how best to maintain the Federal channel and where to place the dredged material.

1.6. **RELEVANT ISSUES.** The following issues have been determined to be relevant to the decision to be made at Longboat Pass:

a. Water quality.

b. Navigation.

c. Manatees.

d. Seagrasses.

e. Nearshore hardbottoms communities.

f. Sea turtle nesting.

g. Cultural resources.

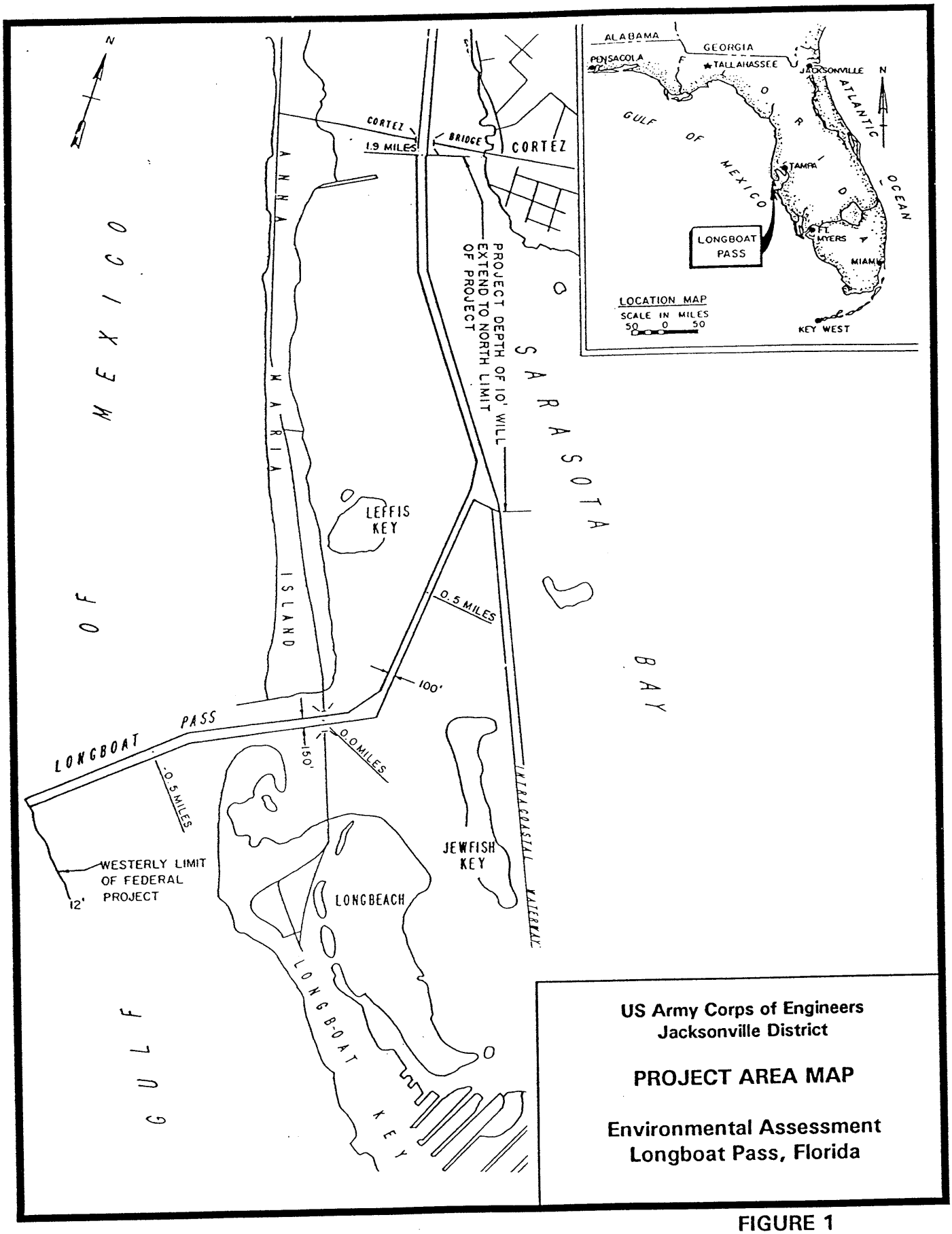
h. Recreation.

i. Aesthetics.

j. Economics.

1.7. **PERMITS REQUIRED**. The maintenance dredging and beach placement of the dredged material will require a Florida Department of Environmental Protection Water Quality Certification in accordance with the Memorandum of Understanding between DEP and the US Army Corps of Engineers, and in accordance with Section 401 of the Clean Water Act.

1.8. **METHODOLOGY.** An interdisciplinary team used a systematic approach to analyze the affected area, to estimate the environmental effects, and to write the environmental impact assessment. This included literature searches, coordination with agencies and private groups having expertise in particular areas, and field investigations.



US Army Corps of Engineers
Jacksonville District

PROJECT AREA MAP

Environmental Assessment
Longboat Pass, Florida

FIGURE 1

2.0. ALTERNATIVES INCLUDING THE PROPOSED ACTION.

2.1. **INTRODUCTION.** The alternatives section is the heart of this Environmental Assessment. This section describes in detail the no-action alternative, the proposed action, and other reasonable alternatives that were studied in detail. Then based on the information and analysis presented in the sections on the Affected Environment and the Probable Impacts, this section presents the beneficial and adverse environmental effects of all alternatives in comparative form, providing a clear basis for choice among the options for the decisionmaker and the public. A summary of this comparison is located in the alternative comparison chart, Table 2.1, page 5. This section has five parts:

a. A description of the process used to formulate alternatives.

b. A description of alternatives that were considered but were eliminated from detailed consideration.

c. A description of each alternative.

d. A comparison of the alternatives.

e. The identification of the preferred alternative.

2.2. **HISTORY OF ALTERNATIVE FORMULATION.** During the construction and subsequent maintenance of the existing channel, dredged materials have been placed in numerous locations including adjacent mangrove and emergent wetland areas. Sometimes the dredged material from maintenance was placed in these wetland areas to eliminate the wetland characteristics and allow the newly created fast land for residential and commercial development. As more and more areas became upland residential, no upland sites remained and available disposal options became limited. Beach placement became the only viable option. In addition, the State of Florida also requested that all suitable beach quality material be placed on the beach. During the development of the State Inlet Management Plan for Longboat Pass nearshore soft corals were identified in the north disposal area. In order to avoid these important resources, the disposal area was modified with the location moved north 2000 feet to form another alternative.

2.3. **ELIMINATED ALTERNATIVES.** With the passage of the Clean Water Act, the placement of dredged material into waters of the United States became more difficult. The State of Florida would not issue water quality certification for placement of this dredged material into these waters. Therefore, the filling of wetlands and the creation of disposal islands were eliminated as alternatives. Upland sites are also not available in the area. Because the material to be dredged is beach quality, the State of Florida objects to the placement in an ocean disposal site and since no ocean sites are within a range which would economically justify its use, the use of an ODMDS site was eliminated.

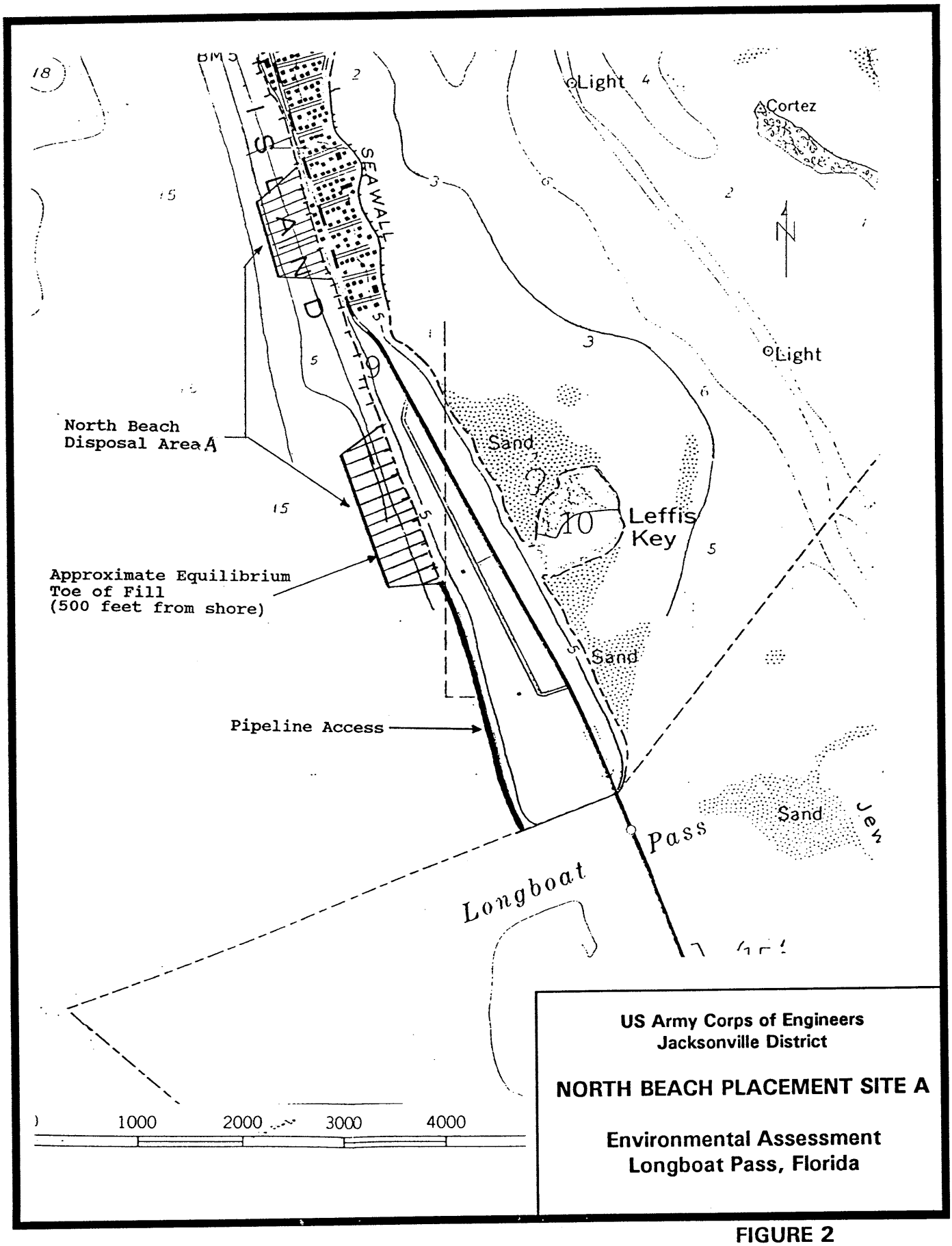
2.4. **DESCRIPTION OF ALTERNATIVES.** The only alternative to maintenance dredging is the No Action alternative. Only two alternative disposal options are available other than the No Action alternative; the beach area north and south of the Pass.

2.4.1. No Action Alternative. With this alternative no maintenance dredging or disposal operations would occur.

2.4.2. Alternative 1. Dredging and North Beach Placement Site A (Figure 2). The maintenance dredging would include the excavation of between 200,000 and 250,000 cubic yards of sandy material, approximately once every two years, from Longboat Pass and the placement of that material on the beach north of the Pass on Anna Maria Island. Longboat Pass is 150 feet wide and 14 feet deep. An allowable 2-foot project over dredge with an additional 50-foot width is authorized. The disposal area would include a 4,000 foot beach area located 2,000 feet north of the north terminal jetty.

2.4.3. Alternative 2. Dredging and South Beach Placement (Figure 3). The maintenance dredging would include the excavation of between 200,000 and 250,000 cubic yards of sandy material, approximately once every two years, from Longboat Pass and the placement of that material on Whitney Beach south of the Pass on Longboat Key. Longboat Pass is 150 feet wide and 14 feet deep. An allowable 2-foot project over dredge with an additional 50-foot width is authorized. The beach disposal area would extend south 5,000 feet south of the northern tip of Longboat Key.

2.4.4. Alternative 3. Dredging and North Beach Placement Site B (Figure 4). The maintenance dredging would include the excavation of between 200,000 and 250,000 cubic yards of sandy material, approximately once every two years, from Longboat Pass and the placement of that material on the beach north of the Pass on Anna Maria Island. Longboat Pass is 150 feet wide and 14 feet deep. An allowable 2-foot project over dredge with an additional 50-foot width is authorized. The disposal area would include a 4,000 foot beach area located adjacent to the north terminal jetty.



US Army Corps of Engineers
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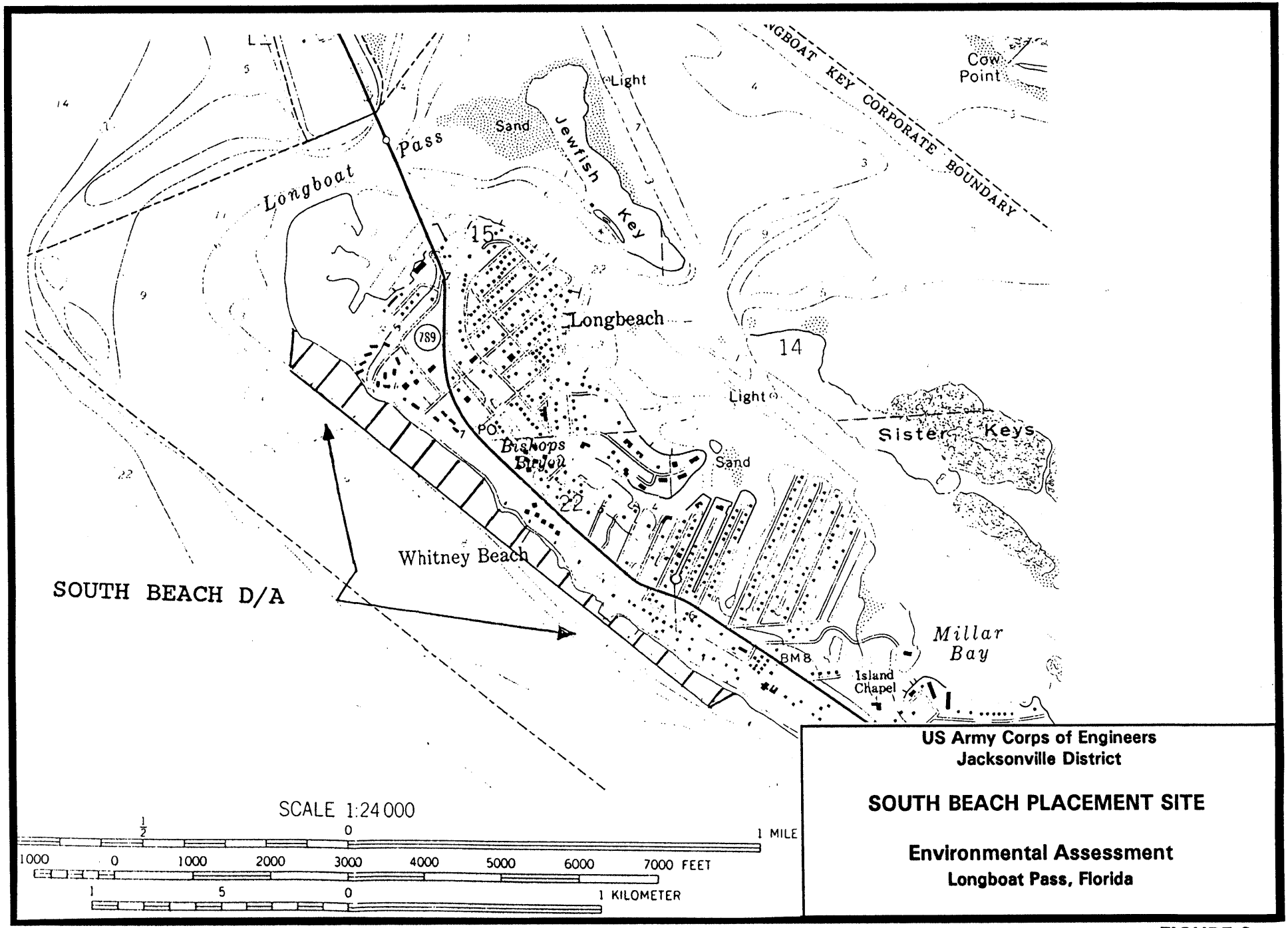
NORTH BEACH PLACEMENT SITE A

Environmental Assessment
Longboat Pass, Florida

FIGURE 2



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SOUTH BEACH PLACEMENT SITE

Environmental Assessment
Longboat Pass, Florida

FIGURE 3

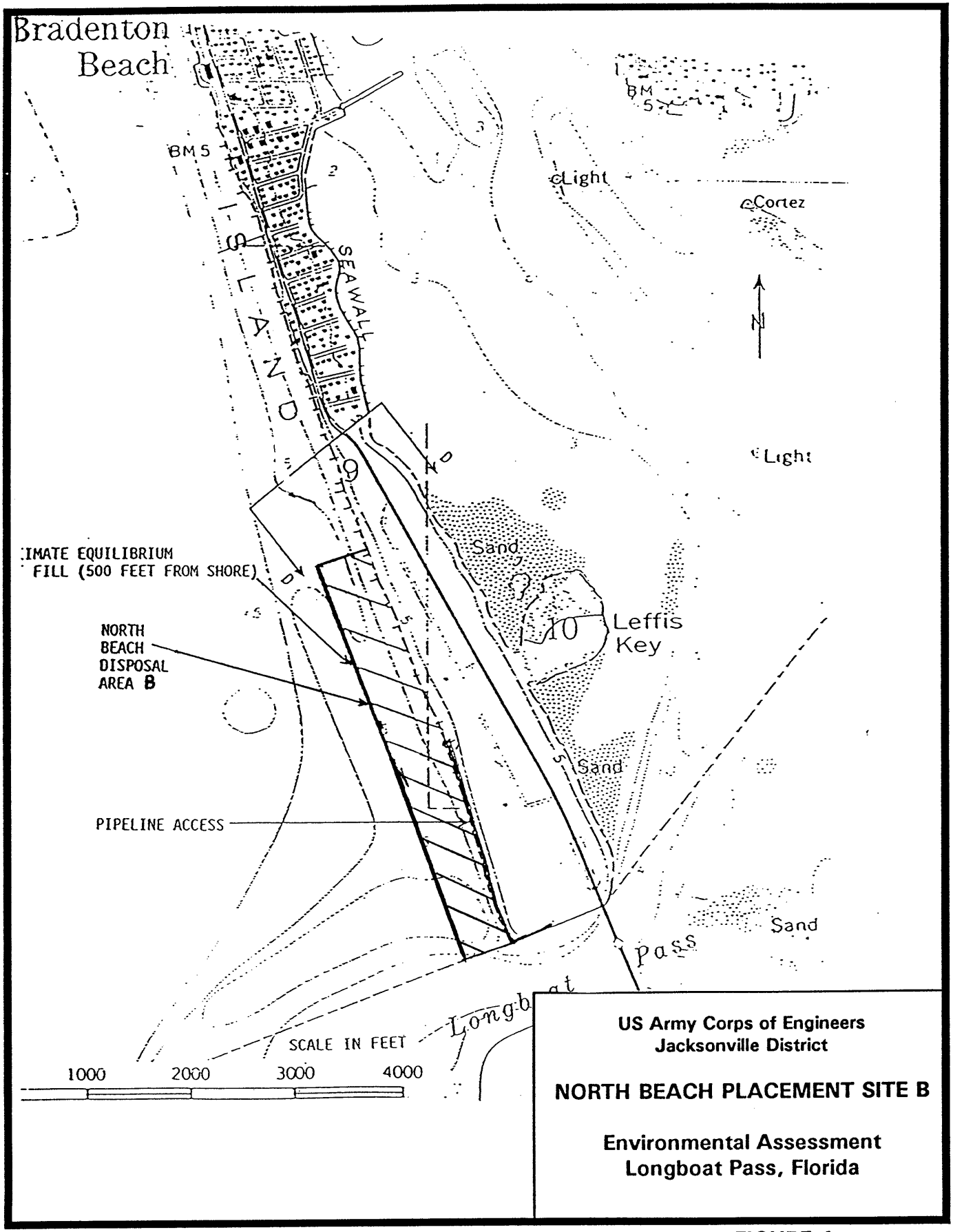
Bradenton Beach
BM 5
BM 5
Light
Cortez
N
SEAWALL
ISLAND
Light
IMATE EQUILIBRIUM
FILL (500 FEET FROM SHORE)
NORTH
BEACH
DISPOSAL
AREA B
PIPELINE ACCESS
Sand
Leffis
Key
Sand
Sand
pass
Longboat
SCALE IN FEET
1000
2000
3000
4000
US Army Corps of Engineers
Jacksonville District
NORTH BEACH PLACEMENT SITE B
Environmental Assessment
Longboat Pass, Florida

FIGURE 4

2.5. **ALTERNATIVE COMPARISON.**

Table 2.1, Alternative Comparison

RESOURCES	NO ACTION	DREDGING AND NORTH BEACH PLACEMENT SITE A	DREDGING AND NORTH BEACH PLACEMENT SITE B	DREDGING AND SOUTH BEACH PLACEMENT
Water Quality	No impacts.	Minor short-term increase in turbidity at dredge site and from return water along the beach.	Minor short-term increase in turbidity at dredge site and from return water along the beach.	Minor short-term increase in turbidity at dredge site and from return water along the beach.
Navigation	Major decrease in navigable capacity of the channel.	Major long-term benefit to recreational navigation.	Major long-term benefit to recreational navigation.	Major long-term benefit to recreational navigation.
Manatees	No impact.	No impact with inclusion of special manatee protection conditions in contract.	No impact with inclusion of special manatee protection conditions in contract.	No impact with inclusion of special manatee protection conditions in contract.
Seagrasses	No impact.	No impact.	No impact.	No impact.
Nearshore hardbottoms	No impact.	No impact.	Short-term impact from increased turbidity levels.	No impact.
Sea turtle nesting	Minor reduction in the overall available nesting habitat in the area.	Medium long-term benefit from the maintenance of turtle nesting areas. Minor short-term impact from the relocation of turtles from construction area.	Medium long-term benefit from the maintenance of turtle nesting areas. Minor short-term impact from the relocation of turtles from construction area.	Medium long-term benefit from the maintenance of turtle nesting areas. Minor short-term impact from the relocation of turtles from construction area.
Cultural resources	No effect.	No adverse effect.	No adverse effect.	No adverse effect.
Recreation	Minor reduction in available beach for recreational purposes.	Medium short-term impact from beach placement of sandy material during recreational season. Medium long-term benefit to recreational activities by maintaining beach.	Medium short-term impact from beach placement of sandy material during recreational season. Medium long-term benefit to recreational activities by maintaining beach.	Medium short-term impact from beach placement of sandy material during recreational season. Medium long-term benefit to recreational activities by maintaining beach.

RESOURCES	NO ACTION	DREDGING AND NORTH BEACH PLACEMENT SITE A	DREDGING AND NORTH BEACH PLACEMENT SITE B	DREDGING AND SOUTH BEACH PLACEMENT
Aesthetics	Minor long term reduction in the aesthetics from the loss of beach.	Major short-term impact from the presence and operation of construction equipment on the beach.	Major short-term impact from the presence and operation of construction equipment on the beach.	Major short-term impact from the presence and operation of construction equipment on the beach.
Economics	Minor long-term economic impact from reduction in tourism due to loss of beach.	Medium short-term impact on the local economy from the sale of goods and services in support of the construction. Medium long-term benefit on tourism from the maintenance of the beach.	Medium short-term impact on the local economy from the sale of goods and services in support of the construction. Medium long-term benefit on tourism from the maintenance of the beach.	Medium short-term impact on the local economy from the sale of goods and services in support of the construction. Medium long-term benefit on tourism from the maintenance of the beach.

2.6. **PREFERRED ALTERNATIVE.** Both disposal alternatives are environmentally acceptable. The selected alternative would be dependent upon the desired results on the respective beach.

3.0. AFFECTED ENVIRONMENT.

3.1. **INTRODUCTION**. The Affected Environment section succinctly describes the existing environmental resources of the areas that would be affected if any of the alternatives were implemented. This section describes only those environmental resources that are relevant to the decision to be made. It does not describe the entire existing environment, but only those environmental resources that would affect or that would be affected by the alternatives if they were implemented. This section, in conjunction with the description of the "no-action" alternative forms the base line conditions for determining the environmental impacts of the proposed action and reasonable alternatives. The environmental issues that are relevant to the decision to be made are the following:

a. Water quality.

b. Navigation.

c. Manatees.

d. Seagrasses.

e. Nearshore hardbottom communities.

f. Sea turtle nesting.

g. Cultural resources.

h. Recreation.

i. Aesthetics.

j. Economics.

3.2. **GENERAL DESCRIPTION**. Longboat Pass is located in the Sarasota Bay watershed which includes non-tidal and tidal wetlands (AT&M, 1994). Typically these areas are located between the barrier islands and the mainlands. The tidal areas also include seagrass beds and mangrove wetlands. These wetlands provide spawning and nursery areas for the local fishery. Located along the seashore are areas of hardbottoms and soft corals. These areas provide habitat for a wide diversity of plants and animals including fish and invertebrates. Over time these barrier islands have been developed and inhabited by people for recreational purposes. In doing so the natural barrier habitat has changed and the interaction between man the wildlife has altered the natural balance. The dune environment does not always support the diversity of plant and animal life it once did. Human activity has limited the numbers of species present. Recreational areas such as

Coquina Beach on Anna Maria Island and Whitney Beach on Longboat Key are intermixed with urbanized development. In addition exotic plant species such as Brazilian pepper and Australian pine have been introduced to the area. These exotic species are intermixed with the natural vegetation which includes sabal palms and sea oats in the near dune environment. The dune environments support a large number of insects, wading and shorebirds, racoons, opossums, rats, mice and reptiles and amphibians (USACE, 1975). The mangrove wetlands support white and brown pelicans, herons, white ibis, and kingfisher. The West Indian manatee is known to inhabit Sarasota Bay.

3.3. **RELEVANT ISSUES.**

3.3.1. **Physical.**

a. Water quality. The Gulf of Mexico waters are relatively clear due to the generally calm prevailing winds and the sandy beach material. The Gulf Intracoastal Waterway (GIWW) is relatively clean as it only receives municipal and surface water runoff. The tidal influence of the Gulf waters also keeps the GIWW relatively clean.

b. Navigation. The GIWW and the Pass are used by a large number of recreational boaters to access the Gulf for fishing and diving. There is also commercial navigation that uses these waterways for sightseeing, charter fishing and diving.

3.3.2. **Biological.**

a. Manatees. The Florida Department of Natural Resources has estimated the 1984 population in Sarasota Bay to be 1,200.

b. Seagrasses. Seagrasses have been surveyed and inventoried over the years for Sarasota County. The most recent effort was conducted by the Southwest Florida Water Management District. In 1990, SWFMD determined that there were approximately 823 acres of contiguous seagrass beds with an additional 87 acres of patchy seagrass beds. It was summarized by Applied Technology that the beds were healthy and the Longboat Pass area of the Sarasota Bay estuary was suitable seagrass bed habitat. Based on these maps, no seagrass beds are located adjacent to the navigation channel.

c. Nearshore hardbottom communities. Hardbottom communities were identified in the Environmental Impact Statements prepared for the Sarasota County, Florida (USACE, 1984). These communities include limestone, rock rubble, limestone and sponge, limestone and sand, and soft corals. On Anna Maria Island, scattered rock hardbottom (20.9 acres) is located between State Monuments R-41 and R-39 and near R-36. Rock hardbottom (14.8 acres) is also located between R-39 and R-35. In addition, a large area of scattered and rock hardbottom is located adjacent to the beach between Monuments R-27 and R-30 (approximately 74 acres). No rock formations have been identified south of the Pass.

d. Sea turtle nesting. The loggerhead sea turtle is known to nest along the beaches of Anna Maria Island and Longboat Key. During the summer of 1990 in association with maintenance dredging of New Pass, sea turtle surveys were conducted on Longboat Key north of New Pass. Between 1 June and 30 June, 14 nests were found and 1,478 relocated and between 1 July and 30 July, 6 nests were found and 550 eggs relocated. No nests were found on Anna Maria Island north of Longboat Pass in the August through November time period.

3.3.3. **Social.**

a. Historic, Archeological, and Cultural Resources. Significant submerged cultural resources have been identified along the west central coast of the state of Florida. Significant terrestrial historic and archeological resources have also been identified on the barrier islands on the west coast of the state. Because the navigation channel at Longboat Pass has been previously dredged for project construction and maintenance of the Federal project, it is the District's determination that significant cultural resources are not likely to be located in the Federal channel. Although no significant historic or archeological resources are recorded for the beach segments under consideration as disposal areas, no systematic surveys have been conducted for those beach segments.

b. Recreation. Recreational boat traffic uses the Pass to access the ocean for diving, fishing and site seeing. The beach areas are used for recreational purposes such as fishing, swimming, sunbathing, volleyball, walking and diving.

c. Aesthetics. The beach has its own aesthetic characteristics. The westerly facing beach allows for observations of the setting sun. Sea birds feed in the surf, loaf in the sand and hover in the updrafts generated by the dunes and building along the beach. The surf pounding on the beach offers a relaxing sound.

3.3.4. **Economics.** The beach and navigation channel offers the tourism industry an attraction for generating revenues.

4.0. ENVIRONMENTAL CONSEQUENCES.

4.1. **INTRODUCTION.** This section describes the probable consequences of implementing each alternative on selected environmental resources. These resources are directly linked to the relevant issues listed in Section 1.4 that have driven and focus the environmental analysis. The following includes anticipated changes to the existing environment including direct and indirect impacts, irreversible and irretrievable commitment of resources, unavoidable effects and cumulative impacts.

4.1.1. Cumulative Impacts. Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions (40 CFR 1508.7).

4.1.2. Irreversible and Irretrievable Commitment of Resources.

a. Irreversible. An irreversible commitment of resources is one in which the ability to use and/or enjoy the resource is lost forever. One example of an irreversible commitment might be the mining of a mineral resource.

b. Irretrievable. An irretrievable commitment of resources is one in which, due to decisions to manage the resource for another purpose, opportunities to use or enjoy the resource as they presently exist are lost for a period of time. An example of an irretrievable loss might be where a type of vegetation is lost due to road construction.

4.2. **NO ACTION ALTERNATIVE.**

4.2.1. **Physical**

a. Water quality. There would be no adverse impacts on water quality.

b. Navigation. There would be a major reduction in the navigable capacity of within a few years. There would be a major reduction in safety for the passage of vessels through the Pass.

4.2.2. **Biological.**

a. Manatees. There would be no impact on manatees.

b. Seagrasses. There would be no impact on seagrasses in the area.

c. Nearshore hardbottom communities. There would be no adverse impact on hardbottom communities.

d. Sea turtle nesting. There would be a minor reduction in sea turtle nesting habitat from the erosion of the beach north of the Pass, the movement of the sandy material within the littoral drift zone and the shoaling of that material within the Pass.

4.2.3. **Social.**

a. Historic, Archeological, and Cultural Resources. This alternative will have no effect on cultural resources included in or eligible for inclusion in the National Register of Historic Places.

b. Recreation. There would be a minor reduction in recreation from the erosion of the beaches and a reduction in the recreational areas available. There would also be a minor reduction in recreation from the loss of navigable capacity of the Pass.

c. Aesthetics. There would be a minor long-term reduction in the beach and it's aesthetic qualities.

4.2.4. **Economic impacts**. There would be a long-term impact on economics from the reduction in revenues attributed to the loss of recreational beach and the loss of navigable capacity of the channel.

4.2.5. **Cumulative effects**. If this action was considered in conjunction with other similar projects and similar No Actions, there would be a substantial adverse impact on recreation and economics of the State of Florida.

4.2.6. **Unavoidable effects**. There would be an eventual loss of navigable capacity of the waterway and recreational beach from the continual sedimentation of the channel and erosion of the shoreline.

4.2.7. **Irreversible and Irretrievable Resource Commitments**. There would be no irreversible or irretrievable commitment of resources from the selection of this alternative.

4.3. **ALTERNATIVE 1. Dredging and North Beach Placement Site A (Figure 1).**

4.3.1. **Physical**

a. Water quality. There would be short-term minor increases in turbidity levels at the dredging site and in the surf zone from the return water. The turbidity levels would be minor because the material is sandy.

b. Navigation. There would be a short-term minor impact on navigation from the presence and operation of the dredging equipment. There would be a long-term medium benefit to navigation from maintaining the Pass.

4.3.2. **Biological**.

a. Manatees. There would be no impact on manatees during dredging if the special conditions for operating the equipment are adhered to.

b. Seagrasses. there would be no impacts on seagrasses as the seagrass bed are far removed from the navigation channel.

c. Nearshore hardbottom communities. The disposal of sandy material has been shifted to avoid impacting nearshore hardbottoms located north of the Pass.

d. Sea turtle nesting. There would be a minor adverse impact on sea turtle nesting should the dredging occur during the nesting season. A nest monitoring and relocation program would insure that the impacts are minimal. If the work is scheduled outside the

nesting season no impacts are anticipated. There would be some long-term minor benefits to sea turtle nesting by helping maintain the beach nesting environment.

4.3.3. **Social.**

a. Historic, Archeological, and Cultural Resources. As described in section 3.0 Affected Environment, because the navigation channel at Longboat Pass has been previously dredged for project construction and maintenance of the Federal project, it is not likely that significant cultural resources are located in the Federal channel. Although no significant archeological resources are recorded for the beach segment under consideration as a disposal area, no systematic surveys have been conducted for the proposed disposal area. It is the District's determination that placement on dredged material on the beach segment north of Longboat Pass will not have an adverse effect on significant cultural resources which may be located there.

b. Recreation. There would be a medium short-term impact on recreational boating and beach activities from the presence and operation of the dredging equipment. However, there would be a minor long-term benefit to recreation from the maintenance of the channel and the beach.

c. Aesthetics. There would be a major short-term impact on beach aesthetics from the presence and operation of pipeline and heavy equipment to move the spoiled material and pipeline and from the discharge plume. There would be a minor short-term benefit to the aesthetics of the beach by help maintaining the beach environment.

4.3.4. **Economic**. There would be a long-term medium benefit to local economics from revenues generated because of a viable recreational navigation channel and beach environment. There would be a short-term minor stimulus to the local economy from the sale of goods and services in support of the dredging work.

4.3.5. **Cumulative effects**. There would be no cumulative effects from the selection of this alternative.

4.3.6. **Unavoidable effects**. There would be short-term adverse impacts on aesthetics, beach recreation and mostly recreational navigation associated with the construction period.

4.3.7. **Irreversible and Irretrievable Resource Commitments**. There would be no irreversible or irretrievable commitment of resources from the selection of this alternative.

4.4. **ALTERNATIVE 2 . Dredging and South Beach Placement (Figure 2).**

4.4.1. **Physical**

a. Water quality. There would be short-term minor increases in turbidity levels at

the dredging site and in the surf zone from the return water. The turbidity levels would be minor because the material is sandy.

b. Navigation. There would be a short-term minor impact on navigation from the presence and operation of the dredging equipment. There would be along-term medium benefit to navigation from maintaining the Pass.

4.4.2. **Biological.**

a. Manatees. There would be no impact on manatees during dredging if the special conditions for operating the equipment are adhered to.

b. Seagrasses. there would be no impacts on seagrasses as the seagrass bed are far removed from the navigation channel.

c. Nearshore hardbottom communities. The disposal of sandy material has been shifted to avoid impacting nearshore hardbottoms located north of the Pass.

d. Sea turtle nesting. There would be a minor adverse impact on sea turtle nesting should the dredging occur during the nesting season. A nest monitoring and relocation program would insure that the impacts are minimal. If the work is scheduled outside the nesting season no impacts are anticipated. There would be some long-term minor benefits to sea turtle nesting by helping maintain the beach nesting environment.

4.4.3. **Social.**

a. Historic, Archeological, and Cultural Resources. As described in Alternative 1, it is not likely that significant cultural resources are located within the Federal channel proposed for maintenance dredging. Although no significant archeological resources are recorded for the south beach segment being considered as a disposal area, no systematic surveys have been conducted for this beach. It is the District's determination that placement on dredged material on the beach segment south of Longboat Pass will not have an adverse effect on significant cultural resources which may be located there.

b. Recreation. There would be a medium short-term impact on recreational boating and beach activities from the presence and operation of the dredging equipment. However, there would be a minor long-term benefit to recreation from the maintenance dredging of the recreational channel and the placement of sand on the beach.

c. Aesthetics. There would be a major short-term impact on beach aesthetics from the presence and operation of pipeline and heavy equipment to move the dredged material and pipeline and from the discharge plume. There would be a minor short-term benefit to the present aesthetics of the beach by help maintaining the beach environment.

4.4.4. **Economic**. There would be a long-term medium benefit to local economics from revenues generated because of a viable recreational navigation channel and beach environment. There would be a short-term minor stimulus to the local economy from the sale of goods and services in support of the dredging work.

4.4.5. **Cumulative effects**. There would be no cumulative effects from the selection of this alternative.

4.4.6. **Unavoidable effects**. There would be short-term adverse impacts on aesthetics, beach recreation and recreational navigation associated with the construction period.

4.4.7. **Irreversible and Irretrievable Resource Commitments**. There would be no irreversible or irretrievable commitment of resources from the selection of this alternative.

4.5. **ALTERNATIVE 3**. Dredging and North Beach Placement Site B (Figure 3).

4.5.1. **Physical**

a. Water quality. There would be short-term minor increases in turbidity levels at the dredging site and in the surf zone from the return water. The turbidity levels would be minor because the material is sandy.

b. Navigation. There would be a short-term minor impact on navigation from the presence and operation of the dredging equipment. There would be along-term medium benefit to navigation from maintaining the Pass.

4.5.2. **Biological**.

a. Manatees. There would be no impact on manatees during dredging if the special conditions for operating the equipment are adhered to.

b. Seagrasses. There would be no impacts on seagrasses as the seagrass bed are far removed from the navigation channel.

c. Nearshore hardbottom communities.

d. Sea turtle nesting. There would be a minor adverse impact on sea turtle nesting should the dredging occur during the nesting season. A nest monitoring and relocation program would insure that the impacts are minimal. If the work is scheduled outside the nesting season no impacts are anticipated. There would be some long-term minor benefits to sea turtle nesting by helping maintain the beach nesting environment.

4.5.3. **Social**.

a. Historic, Archeological, and Cultural Resources. As described in section 3.0 Affected Environment, because the navigation channel at Longboat Pass has been previously dredged for project construction and maintenance of the Federal project, it is not likely that significant cultural resources are located in the Federal channel. Although no significant archeological resources are recorded for the beach segment under consideration as a disposal area, no systematic surveys have been conducted for the proposed disposal area. It is the District's determination that placement on dredged material on the beach segment north of Longboat Pass will not have an adverse effect on significant cultural resources which may be located there.

b. Recreation. There would be a medium short-term impact on recreational boating and beach activities from the presence and operation of the dredging equipment. However, there would be a minor long-term benefit to recreation from the maintenance of the recreational channel and the beach.

c. Aesthetics. There would be a major short-term impact on beach aesthetics from the presence and operation of pipeline and heavy equipment to move the spoiled material and pipeline and from the discharge plume. There would be a minor short-term benefit to the aesthetics of the beach by help maintaining the beach environment.

4.5.4. **Economic**. There would be a long-term medium benefit to local economics from revenues generated because of a viable recreational navigation channel and beach environment. There would be a short-term minor stimulus to the local economy from the sale of goods and services in support of the dredging work.

4.5.5. **Cumulative effects**. There would be no cumulative effects from the selection of this alternative.

4.5.6. **Unavoidable effects**. There would be short-term adverse impacts on aesthetics, beach recreation and recreational navigation associated with the construction period.

4.5.7. **Irreversible and Irretrievable Resource Commitments**. There would be no irreversible or irretrievable commitment of resources from the selection of this alternative.

5.0. **LIST OF PREPARERS.** The following professionals prepared the Environmental Assessment.

NAME	DISCIPLINE	EXPERIENCE	ROLE IN PREPARING EIS
William J. Fonferek	Biologist	16 years environmental impacts assessment	NEPA Coordinator, Biological Impact Assessment, Endangered Species Consultation
David Gerland	Civil Engineer	6 ½ years experience	Project Manager
Paul Stevenson	Landscape Architect	5 years experience recreation design, construction and development	Recreation Resources Analysis and Mitigation Development
Janice E. Adams	Archeologist	10 years cultural resources assessment	Cultural Resources
Matthew Miller	Environmental Engineer	3 years	HTRW and Water Quality Investigations and Impact Assessment

6.0. **CONSULTATION WITH OTHERS - PUBLIC INVOLVEMENT PROCESS.** A public notice (PN-LBP-182) dated 23 November 1993 was issued for the project.

6.1. The Florida Game and Freshwater Fish Commission (FGFWFC) responded by letter dated 16 June 1994 providing information concerning migratory bird nesting in the project area and the winter-over presence of the federally-listed piping plover. They stated that impacts to migratory birds will occur if the project is implemented as designed. They recommended avoidance of nesting areas, the surveying of the piping plover during the winter months and the avoidance of use areas by the piping plover during the winter months in conjunction with their recommendations.

6.1.1. Response: If the Corps plans and implements the work in accordance with the District Migratory Protection Policy, the work would not adversely affect migratory bird nesting. All work would be conducted in front of the dunes and vegetation limits. The nesting areas will be marked and avoided during nesting season. Surveys of the piping plover are not planned since we do not feel it is necessary. The areas used by the piping plover will not be affected, therefore, no additional coordination with FGFWFC is deemed necessary.

6.2. The U.S. Fish and Wildlife Service (USFWS) responded to the public notice by letter dated 21 March 1994 stating that we should either avoid turtle nesting season or implement a turtle nest relocation program. The public notice stated that formal consultation will be conducted with the service regarding impacts on endangered species and they would provide specific recommendations at that time.

6.2.1. Response: Consultation on impacts to nesting sea turtles had been previously conducted by letter dated 3 April 1990. We reinitiated consultation on impacts to the piping plover by letter dated 31 August 1994, providing the USFWS with a No Effects determination. By letter dated 19 September 1994, the USFWS responded concurring in our No Effects determination provided the Corps follows the recommendations of the Florida Game and Freshwater Commission letter dated 16 June 1994. By letter dated 25 October 1994, we informed the USFWS that we did not concur with the FGFWFC letter because the recommendations would not affect conservation of the piping plover and the recommendations were for migratory bird nesting protection and not endangered species protection. This concern was previously addressed in Section 6.1.1.

7.0. **INDEX.**

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APPENDIX I

SECTION 404(B)(1) EVALUATION